

1. Record Nr.	UNINA9910809031703321
Titolo	Biofouling : types, impact, and anti-fouling // Jun Chan and Shing Wong, editors
Pubbl/distr/stampa	New York, : Nova Science Publishers, c2010
ISBN	1-61324-722-2
Edizione	[1st ed.]
Descrizione fisica	1 online resource (379 p.)
Collana	Pollution science, technology and abatement series
Altri autori (Persone)	ChanJun WongShing
Disciplina	628.9/6
Soggetti	Fouling organisms Fouling - Prevention Hydraulic structures - Protection Medical instruments and apparatus - Microbiology Protective coatings
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	""BIOFOULING: TYPES, IMPACT AND ANTI-FOULING""; ""BIOFOULING: TYPES, IMPACT AND ANTI-FOULING""; ""CONTENTS ""; ""PREFACE ""; ""LIFE STRATEGIES OF MARINE SESSILE ORGANISMS AS AN APPROACH FOR EXPLORATION OF STRUCTURE AND SUCCESSION OF FOULING COMMUNITIES ""; ""ABSTRACT ""; ""INTRODUCTION ""; ""Development of Fouling Communities ""; ""Problem ""; ""Life Strategies. New Approach to an Old Problem ""; ""Task ""; ""Study Area ""; ""Development of Fouling Communities in the White Sea ""; ""MATERIAL AND METHODS ""; ""Tested Species ""; ""Used Characteristics ""; ""RESULTS AND DISCUSSION "" ""Definitive Size """"Life Span ""; ""Growth Rate ""; ""Fertility and the Volume of Larval Pool ""; ""Tolerance to Changes in Main Environmental Factors (Temperature, Salinity)""; ""Edificatory Abilities of Monospecific Settlements ""; ""Attachment Strength ""; ""Pumping Rate ""; ""Resistance to Invasion of other Fouling Organisms ""; ""Species position in Ramenskii-Grime Coordinate System ""; ""ACKNOWLEDGMENT ""; ""REFERENCES ""; ""GENERAL DEFENSE MECHANISMS OF THE INTEGUMENT AGAINST BIO-COATING IN AQUATIC MAMMALS"";

""ABSTRACT ""; ""INTRODUCTION ""

""THE SPECIAL BIOTOPE CONDITIONS ON THE EPIDERMAL SURFACE
""""THE MORE GENERAL DEFENSE APPROACH: FREE SUGARS ""; ""THE
MORE SOPHISTICATED DEFENSE: INNATE IMMUNITY ""; ""SPECIFIC
CONDITIONS IN DOLPHINS ""; ""SUMMARY AND CONCLUSION "";
""ACKNOWLEDGMENTS ""; ""REFERENCES ""; ""MARINE BIOFOULING IN
HEAT EXCHANGERS""; ""ABSTRACT ""; ""1. THE PROBLEM OF FOULING IN
SEAWATER SYSTEMS ""; ""1.1. Cooling Water Systems in Coastal
Facilities ""; ""1.2. Problems Caused by Fouling in Heat Exchangers "";
""a) Operational Problems ""; ""b) Costs due to Heat Exchanger Fouling
""; ""Capital Expenditure ""
""Maintenance Costs """"Costs due to Production Loss ""; ""1.3. Fouling
Mitigation Treatments ""; ""Chlorine ""; ""Film-Forming/Dispersing
Additives: Mexel®432 ""; ""Ultraviolet Light (UV) ""; ""1.4. Environmental
Impacts of the Treatments ""; ""Environmental Impact of Chlorine "";
""Environmental Impact of Mexel®432 ""; ""Environmental Impact of UV
""; ""2. TECHNIQUES FOR MONITORING AND CHARACTERIZATION OF
FOULING""; ""2.1. In-situ Studies: Pilot Plant for Monitoring the Fouling
""; ""2.2. Indirect Methods for the Quantification of Fouling ""
""2.3. Direct Methods for the Characterization of Fouling """"2.3.1.
Physico-Chemical Methods ""; ""CHNS ""; ""2.3.2. Molecular Methods "";
""Biofilm Sample Harvest and Pretreatment ""; ""Genomic DNA
Extraction and PCR Amplification of Bacterial 16S rDNA Gene"";
""Construction of Clones Libraries and Sequencing of 16S rDNA "";
""Bioinformatic Analysis ""; ""2.4. Modelization for Fouling Progression
""; ""3. A PARTICULAR IN SITU STUDY: LOS BARRIOS POWER STATION
(ALGECIRAS BAY, SPAIN) ""; ""3.1. Assays Description ""; ""3.2.
Biofouling Characterization ""
""3.2.1. Results of Physico-Chemical Characterization of Fouling""
